

USSN: 10/001,379
Atty. Docket No.: 2001B095
Amdt. Dated May 21, 2004
Reply to Non-Final OA of February 23, 2004

REMARKS/ARGUMENTS

Claims 1-5 and 7-21 are pending in this Application. Claim 1 is amended to clarify the composition of the recited multi-layer film. Claim 6 is cancelled and the recitals at which are incorporated into amended claim 1. New claims 13-21 are added to more particularly define certain embodiments of the inventive films. The specifics of the claim amendments and the support therefore will be discussed in detail below.

Interview

Applicants appreciate the courtesies extended by Examiner Jackson to their attorney, Dean Simmons, in the telephonic interview on April 29, 2004. In that interview, the Office Action rejections and cited references were discussed. Mr. Simmons agreed that claim amendments found in this Response would be submitted along with arguments highlighting the distinctions over the cited art. Examiner Jackson indicated that she would consider the amendments and arguments when filed. Additionally, some particular issues discussed in the interview are referred to in the remarks below.

Section 102 Rejections

Paragraphs 3 and 4 of the Office Action reject claims 1-5 and 7-12 in two separate rejections relying upon U.S. Patent 6,562,478 to Fischer et al. and U.S. Patent 5,683,802 to Murschall et al. It is noted that the Section 102 Rejections do not apply to previous claim 6 which recited a film having a water vapor transmission rate of at least 3.0 grams/100 square inches. Fischer and Murschall do not disclose films having these recited water vapor transmission rate characteristics. The claim 6 recital is now found in claim 1 and claims 2-5 and 7-12 depending therefrom. Additionally, the recital is found in new claims 13-21. For this reason alone, all pending claims are allowable over the Fischer and Murschall references. Support for the amendment to claim 1 is found in original claim 6 and as well as page 4, lines 2-5 of the Specification.

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Section 103 Rejections

Paragraph 5 of the Office Action rejects claims 1-12 over PCT publication WO 00/12302 (Agent) in view of U.S. Patent 6,458,469 to DeLisio et al. in view of U.S. Patent 6,410,132 to Peiffer.

These rejections acknowledge that the Agent publication does not teach the incorporation of a hydrocarbon resin in the skin layer of the films disclosed. The cornerstone of the rejections is that one of ordinary skill would be motivated to include conventional additives, such as hydrocarbon resins, in a skin layer of the multi-layer films of the Agent publication, as disclosed by DeLisio and Peiffer, to improve general film properties.

In considering the obviousness of arriving at the claimed invention, all of the teachings of the references must be considered in determining whether it would be obvious to combine the teachings of the multiple references into a single film. It is important to note that Agent publication discloses a film with a high water vapor transmission rate ("WVTR"). There is simply no teaching or suggestion in any of the references that the WVTR properties of the Agent film may be maintained after inclusion of a hydrocarbon resin in the skin layer of the Agent film.

The Office does not identify such a suggestion. The Office Action simply concludes it would be obvious to include hydrocarbon resins in the skin layer of the Agent film to take advantage of general beneficial characteristics made possible by inclusion of hydrocarbon resins in skin layers. However, the reference combination ignores the fact, as discussed on page 4 of the Specification, that inclusion of hydrocarbon resins in film layers was previously thought to impede water vapor transmission. Therefore, one skilled in the art would not be motivated to include a hydrocarbon resin in the skin layer of Agent's film for fear that the desired water vapor transmission rate would be destroyed. In fact, Agent's stated desired WVTR properties in combination with the knowledge of the art regarding the effect of hydrocarbon resins on WVTR's teaches away from the applied references combination.

Moreover, the Office Action concludes that the Specification "provides no evidence of unexpected results" from the inclusion of a hydrocarbon resin in the skin layer. Specifically, the Rejection concludes that the Application data "does not appear to provide unexpected results in terms of WVTR" given that the examples showing the inclusion LDPE and MDPE without a

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hydrocarbon resin also provide excellent WVTR properties.

First of all, it is unnecessary to demonstrate unexpected results unless unexpected results are necessary to overcome a *prima facie* case of obviousness. As mentioned above, there is no suggestion in the cited prior art to produce a film having high WVTR characteristics by creation of a film having the recited compositional features.

However, assuming *arguendo*, that it is necessary to demonstrate unexpected WVTR improvement by the inclusion of a hydrocarbon resin, as opposed to a MDPE or HDPE resin, the Application data demonstrates these unexpected results. In particular, by comparing the data tables associated with Examples 1 and 2, it is seen that inclusion of up to 20 wt.% of MDPE or LDPE provides a WVTR of less than 3. In contrast, including 20 wt.% of a hydrocarbon resin (Exxon 6114) provides a WVTR in excess of 3. Therefore, an unexpected result is demonstrated which rebuts a *prima facie* case of obviousness. Also, the reported results show an expected improvement in WVTR's from inclusion of a hydrocarbon resin in the skin layer contrary to the previously expected result of lowering water vapor transmission rates.

The reported experimental results were discussed in the April 29 interview. Specifically, Examiner Jackson questioned the unexpected nature of the water vapor transmission rates above 3 reported in the second and third entries in the table of Example 1 and the second entry in the table of Example 2. Specifically, the last entry of the data of Example 1 showing a water vapor transmission rate of 4 was discussed. The last entry relates to a medium density skin layer. As noted on page 4, line 28 through line 5 of page 5, water vapor transmission rates above 4 are expected for polyethylene skin layers. However, the claimed invention relates to **copolymer skin layers**. Copolymer skin layers exhibit functional improvements over polyethylene skin layers as described on page 5 of the Specification. However, the copolymer skin layers exhibit poor WVTR properties as demonstrated at the first entries in the data of Examples 1 and 2. The claimed invention provides films exhibiting the positive performance characteristics of copolymer skin layers while maintaining high water vapor transmission rates of polyethylene skin layers.

The characteristics of the claimed films, as described in the Specification, were referred to in the April 29 interview. In particular, Examiner Jackson mentioned that the features of the

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claimed films were considered to be improved porosity and tear properties rather than high water vapor transmission rates. Of course, it is not necessary that the Specification discuss all of the advantages of an invention as long as the claimed invention is supported by the Specification. However, it is noted that the Specification is replete with references to the high water vapor transmission rates of the claimed films. See, page 2, lines 13-14 and 22-23, page 4, lines 1, 10-12, and 18-20, and page 11, lines 11-13 as well as numerous other passages throughout the Specification as well as the Title of this Application. Also, WVTR and tear properties are related to porosity.

Reconsideration of claims 1-5 and 7-12 is requested.

New Claims

New claims 13-21 are submitted to more particularly define certain embodiments of the claimed inventions. In particular, these claims recite that the base layer consists essentially of a polyethylene and from 1 wt.% to 30 wt.% of a cavitating agent. Support for these claims is found on pages 11-12 and the Examples of the Specification.

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Conclusion

Consistent with the foregoing, claims 1-5 and 7-21 are believed to be in condition for allowance. Consideration of these claims with an early Notice of Allowance is respectfully requested.

It is believed that this submission is fully responsive to the outstanding Office Action. However, should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number listed below so that all matters may be expeditiously resolved.

Respectfully submitted,

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